

**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY
(Includes Reference to Provisional and PCT International Applications)**

Attorney's Docket No.

021238-330

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;
I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

FILTERING UNSATURATED HYDROCARBONS USING INTERMETALLIC NANO-CLUSTERS

The specification of which (check only one item below):

is attached hereto.

was filed as United States application

Number 09/778,043

on February 7, 2001

and was amended

on _____ (if applicable).

was filed as PCT international application

Number _____

on _____

and was amended

on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 (a)-(e) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. §119:

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. §119
			<u>_ Yes</u> <u>_ No</u>
			<u>_ Yes</u> <u>_ No</u>
			<u>_ Yes</u> <u>_ No</u>
			<u>_ Yes</u> <u>_ No</u>
			<u>_ Yes</u> <u>_ No</u>

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below.

60/180,681

(Application Number)

February 7, 2000

(Filing Date)

(Application Number)

(Filing Date)

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (CONT'D)
 (Includes Reference to Provisional and PCT International Applications)

Attorney's Docket No.
 021238-330

I hereby claim the benefit under Title 35, United States Code, §120 of any United States applications(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose to the Office all information known to me to be material to the patentability as defined in Title 37, Code of Federal Regulations §1.56, which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. §120:

U.S. APPLICATIONS		STATUS (check one)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				
PCT APPLICATION NO.	PCT FILING DATE	U.S. APPLICATION NUMBERS ASSIGNED (if any)		

I hereby appoint the following attorneys and agent(s) to prosecute said application and to transact all business in the Patent and Trademark Office connected therewith and to file, prosecute and to transact all business in connection with international applications directed to said invention:

William L. Mathis	17,337	Eric H. Weisblatt	30,505	Bruce T. Wieder	33,815
Robert S. Swecker	19,885	James W. Peterson	26,057	Todd R. Walters	34,040
Platon N. Mandros	22,124	Teresa Stanek Rea	30,427	Ronni S. Jillions	31,979
Benton S. Duffett, Jr.	22,030	Robert E. Krebs	25,885	Harold R. Brown III	36,341
Norman H. Stepno	22,716	William C. Rowland	30,888	Allen R. Baum	36,086
Ronald L. Grudziecki	24,970	T. Gene Dillahunt	25,423	Steven M. duBois	35,023
Frederick G. Michaud, Jr.	26,003	Patrick C. Keane	32,858	Brian P. O'Shaughnessy	32,747
Alan E. Kopecki	25,813	B. Jefferson Boggs, Jr.	32,344	Kenneth B. Leffler	36,075
Regis E. Slutter	26,999	William H. Benz	25,952	Fred W. Hathaway	32,236
Samuel C. Miller, III	27,360	Peter K. Skiff	31,917	Wendi L. Weinstein	34,456
Robert G. Mukai	28,531	Richard J. McGrath	29,195	Mary Ann Dillahunt	34,576
George A. Hovanec, Jr.	28,223	Matthew L. Schneider	32,814		
James A. LaBarre	28,632	Michael G. Savage	32,596		
E. Joseph Gess	28,510	Gerald F. Swiss	30,113		
R. Danny Huntington	27,903	Charles F. Wieland III	33,096		



21839

and: Kevin B. Osborne, Reg. No. 33,750; Clinton H. Hallman, Reg. No. 38,480; Charles E. B. Glenn, Reg. No. 29,796
 Address all correspondence to:



21839

Peter K. Skiff

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

P.O. Box 1404

Alexandria, Virginia 22313-1404

Address all telephone calls to: Peter K. Skiff at (703) 836-6620.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE OR FIRST INVENTOR

A. Clifton Lilly, Jr.

SIGNATURE

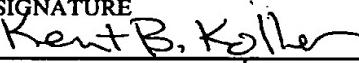
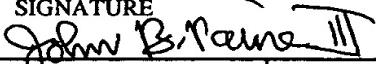
A. Clifton Lilly, Jr.

DATE

7/17/01

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (CONT'D)
 (Includes Reference to Provisional and PCT International Applications)

Attorney's Docket No.
 021238-330

RESIDENCE Chesterfield, Virginia	CITIZENSHIP USA	
POST OFFICE ADDRESS 9641 Waterfowl Flyway, Chesterfield, Virginia 23838		
FULL NAME OF SECOND JOINT INVENTOR, IF ANY Kent B. Koller	SIGNATURE  DATE 7/05/01	
RESIDENCE Chesterfield, Virginia	CITIZENSHIP USA	
POST OFFICE ADDRESS 8401 Kintail Drive, Chesterfield, Virginia 23838		
FULL NAME OF THIRD JOINT INVENTOR, IF ANY John B. Paine, III	SIGNATURE  DATE JUNE 26 2001	
RESIDENCE Midlothian, Virginia	CITIZENSHIP USA	
POST OFFICE ADDRESS 13630 Trilithon Road, Midlothian, Virginia 23235		
FULL NAME OF FOURTH JOINT INVENTOR, IF ANY Purusottam Jena	SIGNATURE	DATE
RESIDENCE Richmond, Virginia	CITIZENSHIP USA	
POST OFFICE ADDRESS 9906 Colony Bluff Drive, Richmond, Virginia 23233		
FULL NAME OF FIFTH JOINT INVENTOR, IF ANY Bijan K. Rao	SIGNATURE	DATE
RESIDENCE Richmond, Virginia	CITIZENSHIP USA	
POST OFFICE ADDRESS 10204 Brookmart Drive, Richmond, Virginia 23233		

**COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY
(Includes Reference to Provisional and PCT International Applications)**

Attorney's Docket No.

021238-330

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;
I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor
(if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention
entitled:

FILTERING UNSATURATED HYDROCARBONS USING INTERMETALLIC NANO-CLUSTERS

the specification of which (check only one item below):

is attached hereto.

was filed as United States application

Number 09/778,043

on February 7, 2001

and was amended

on _____ (if applicable).

was filed as PCT international application

Number _____

on _____

and was amended

on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims,
as amended by any amendment referred to above.

I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in
Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119 (a)-(e) of any foreign application(s) for
patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the
United States of America listed below and have also identified below any foreign application(s) for patent or inventor's
certificate or any PCT international application(s) designating at least one country other than the United States of America
filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

PRIOR FOREIGN/PCT APPLICATION(S) AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. §119:

COUNTRY (if PCT, indicate "PCT")	APPLICATION NUMBER	DATE OF FILING (day, month, year)	PRIORITY CLAIMED UNDER 35 U.S.C. §119
			<u>Yes</u> <u>No</u>

I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed
below.

60/180,681

(Application Number)

February 7, 2000

(Filing Date)

(Application Number)

(Filing Date)

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (CONT'D)
 (Includes Reference to Provisional and PCT International Applications)

Attorney's Docket No.
021238-330

I hereby claim the benefit under Title 35, United States Code, §120 of any United States applications(s) or PCT international application(s) designating the United States of America that is/are listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in that/those prior application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose to the Office all information known to me to be material to the patentability as defined in Title 37, Code of Federal Regulations §1.56, which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PRIOR U.S. APPLICATIONS OR PCT INTERNATIONAL APPLICATIONS DESIGNATING THE U.S. FOR BENEFIT UNDER 35 U.S.C. §120:

U.S. APPLICATIONS		STATUS (check one)		
U.S. APPLICATION NUMBER	U.S. FILING DATE	PATENTED	PENDING	ABANDONED
PCT APPLICATIONS DESIGNATING THE U.S.				
PCT APPLICATION NO.	PCT FILING DATE	U.S. APPLICATION NUMBERS ASSIGNED (if any)		

I hereby appoint the following attorneys and agent(s) to prosecute said application and to transact all business in the Patent and Trademark Office connected therewith and to file, prosecute and to transact all business in connection with international applications directed to said invention:

William L. Mathis	17,337	Eric H. Weisblatt	30,505	Bruce T. Wieder	33,815
Robert S. Swecker	19,885	James W. Peterson	26,057	Todd R. Walters	34,040
Platon N. Mandros	22,124	Teresa Stanek Rea	30,427	Ronni S. Jillions	31,979
Benton S. Duffett, Jr.	22,030	Robert E. Krebs	25,885	Harold R. Brown III	36,341
Norman H. Stepno	22,716	William C. Rowland	30,888	Allen R. Baum	36,086
Ronald L. Grudziecki	24,970	T. Gene Dillahunt	25,423	Steven M. duBois	35,023
Frederick G. Michaud, Jr.	26,003	Patrick C. Keane	32,858	Brian P. O'Shaughnessy	32,747
Alan E. Kopecki	25,813	B. Jefferson Boggs, Jr.	32,344	Kenneth B. Leffler	36,075
Regis E. Slutter	26,999	William H. Benz	25,952	Fred W. Hathaway	32,236
Samuel C. Miller, III	27,360	Peter K. Skiff	31,917	Wendi L. Weinstein	34,456
Robert G. Mukai	28,531	Richard J. McGrath	29,195	Mary Ann Dillahunt	34,576
George A. Hovanec, Jr.	28,223	Matthew L. Schneider	32,814		
James A. LaBarre	28,632	Michael G. Savage	32,596		
E. Joseph Gess	28,510	Gerald F. Swiss	30,113		
R. Danny Huntington	27,903	Charles F. Wieland III	33,096		



21839

and: Kevin B. Osborne, Reg. No. 33,750; Clinton H. Hallman, Reg. No. 38,480; Charles E. B. Glenn, Reg. No. 29,796
 Address all correspondence to:



21839

Peter K. Skiff
 BURNS, DOANE, SWECKER & MATHIS, L.L.P.
 P.O. Box 1404
 Alexandria, Virginia 22313-1404

Address all telephone calls to: Peter K. Skiff at (703) 836-6620.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF SOLE OR FIRST INVENTOR	SIGNATURE	DATE
A. Clifton Lilly, Jr.		

COMBINED DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY (CONT'D) (Includes Reference to Provisional and PCT International Applications)		Attorney's Docket No. 021238-330
---	--	-------------------------------------

RESIDENCE <u>Chesterfield, Virginia</u>	CITIZENSHIP USA	
POST OFFICE ADDRESS <u>9641 Waterfowl Flyway, Chesterfield, Virginia 23838</u>		
FULL NAME OF SECOND JOINT INVENTOR, IF ANY <u>Kent B. Koller</u>	SIGNATURE	DATE
RESIDENCE <u>Chesterfield, Virginia</u>	CITIZENSHIP USA	
POST OFFICE ADDRESS <u>8401 Kintail Drive, Chesterfield, Virginia 23838</u>		
FULL NAME OF THIRD JOINT INVENTOR, IF ANY <u>John B. Paine, III</u>	SIGNATURE	DATE
RESIDENCE <u>Midlothian, Virginia</u>	CITIZENSHIP USA	
POST OFFICE ADDRESS <u>13630 Trilithon Road, Midlothian, Virginia 23235</u>		
FULL NAME OF FOURTH JOINT INVENTOR, IF ANY <u>Purusottam Jena</u>	SIGNATURE <i>Purusottam Jena</i>	DATE <i>July 30, 2001</i>
RESIDENCE <u>Richmond, Virginia</u>	CITIZENSHIP USA	
POST OFFICE ADDRESS <u>9906 Colony Bluff Drive, Richmond, Virginia 23233</u>		
FULL NAME OF FIFTH JOINT INVENTOR, IF ANY <u>Bijan K. Rao</u>	SIGNATURE <i>Bijan K. Rao</i>	DATE <i>July 30, 2001</i>
RESIDENCE <u>Richmond, Virginia</u>	CITIZENSHIP USA	
POST OFFICE ADDRESS <u>10204 Brookmont Drive, Richmond, Virginia 23233</u>		